

# Pioneer

DVD-R/RW WRITER (DVR-A03)



Pioneer's DVD-R/RW Writer  
Opens a New Horizon



# The Pioneer DVR-A03

With the coming of the digital millennium, we will experience daily evolution in both office work and home entertainment. All document flow will come in digital format. Still and motion pictures will be digitized.

Wherever you are, there will be the need for higher data capacity either for storage or for distribution. Ideally, the medium should be lightweight, take less time to create, and be playable on hardware commonly available in the market. DVD-R/RW media and Pioneer's DVR-A03 writer are the solution to these requirements.

DVD-R/RW media's wide playback compatibility is the key advantage provided by the DVR-A03 writer. Recorded DVD-R/RW discs can be read by most DVD-ROM equipped computers. Furthermore, if the video material is recorded in DVD-Video format, they can be played back on consumer DVD-Video players.\* Not only can Pioneer's DVR-A03 writer record to DVD-R/RW media, but it can also record to CD-R/RW media, making it a versatile multi-functional writer.\*\*

## 4.7 GB of data at your fingertips.

DVD's strength lies in its ROM disc compatibility. Now you can read DVDs and CDs on the same drive. Or you can write to either. DVD will undoubtedly be the recording medium for the future.

## World's first<sup>1</sup> DVD/CD compatible writer

Just as you record text or sound on a CD-R, you can now record video as well on a DVD-R or DVD-RW. The ease of recording is the same as with CD-R or CD-RW. And DVD's capacity of up to 4.7 GB makes it ideal for high volume data backup.

## High-speed write and read

For read, the DVR-A03 allows 4x for DVD-ROM and 24x for CD-ROM. For write, it offers 2x for DVD-R and 8x for CD-R.

## High reliability based on Pioneer's proven DVD technology

Pioneer's DVD-R drives are highly regarded among the world's leading authoring users for their reliability and functionality. Pioneer's proven DVD technology and long experience with professional drives combine to make the DVR-A03 writer more user-friendly.

## Pioneer's original dual-laser pickup

Pioneer's R&D and experience with advanced DVD technology have enabled the development of the dual laser pickup, this in turn has made it possible to have one drive compatible with both CD and DVD.

## Buffer under run protection for DVD-R/RW

The DVD writer has a function that prevents the buffer from running out of data while DVD-R/RW is recording. This minimizes failed recordings and DVD wastage.



# - Opens a New Horizon

## Applications

### Back up large volumes of data

A DVD-R or DVD-RW offers 4.7 GB of data storage capacity on a single side, equal to seven times the storage capacity of a CD-ROM. But you can read or write to it as easily as to a CD.

### Make video albums of your family

As if trying to record your family wasn't hard enough, finding an accessible, quality play-back mechanism and hoping the image quality doesn't degrade over the years is even harder. However with the widespread availability of DVD play-back equipment and the longevity of DVD-R/RW media these problems are now a thing of the past.<sup>2,4</sup>

### Make archives of your personal video collection

One DVD can record about two hours of standard image quality video. There is no concern about image deterioration or space problems, as is the case with conventional video cassettes, thus ensuring that those once-in-a lifetime events can be kept for a lifetime.

### Distribute video letters / recordings

Keep in touch with friends and relatives by sending them video letters. The affordability of the DVR-A03<sup>3</sup> makes it inexpensive to send video letters to those that matter. By recording in the DVD-Video format, your messages can be played back on a DVD-Video player or DVD-ROM equipped computer. DVD-R is compact and portable and is readable in a wide range of DVD player options.

### Add Video to make your presentations more dynamic

Adding video to presentations can make them extremely dynamic and memorable. You can increase the appeal of your business presentations by adding video data and using a DVD-Video player or computer equipped with a DVD-ROM drive for playback.<sup>2,4,5</sup> Go on, impress your clients!



\* Some DVD-ROM drives and DVD-Video players cannot playback the DVD-R/RW media. A hardware or software DVD decoder is required for DVD-Video playback on the computer platform.

\*\* Writing software support required.



## DVD-R/RW – The same evolutionary path as CD-R/RW



The keyterm is ROM disc compatibility.

The DVD-R/RW format is compatible with DVD-ROM. The relationship between the DVD-R/RW and DVD-ROM formats is similar to that between the CD-R/RW and CD-ROM formats.

## DVD Media

*The products in this catalogue are in compliance with the DVD-R for General standards designed for ordinary computer applications.*

### DVD-R

DVD-R is ideal for storing large volumes of data such as video. Video or data recorded on a DVD-R can be played in a computer equipped with a DVD-ROM drive or a DVD-Video player.<sup>4</sup> Because it is a write-once media, the data recorded on a DVD-R cannot be accidentally erased.

### DVD-RW

DVD-RW is rewriteable up to about 1000 times. DVD-RW will be supported by Pioneer's consumer DVD recorder, which will be released in 2001. As a storage medium this will supersede video cassettes, including VHS. A growing demand is expected for DVD-RW.

### DVD-R/RW Format

DVD-R/RW is the standard format based on the same ROM format used by DVD-ROM. Therefore, DVD-R/RWs, which can hold up to 4.7 GB of data, ensure excellent playback compatibility; they can be played on existing DVD-ROM drives and DVD-Video players.<sup>2,4</sup>

DVD-R and CD-R have a lot in common. Both discs use organic dye and go through similar manufacturing processes. In recording, DVD-R supports both disc-at-once and incremental write, as does CD-R.

As a founding member of the DVD Forum and corporate chair of its DVD-R and DVD-RW working groups, Pioneer has strived to establish uniform global standards for DVD. Pioneer has also promoted the dissemination of DVD-RW products in co-operation with companies joining the RW Products Promotion Initiative (RWPPPI).

### Footnotes

1. As of spring 2001.
2. For DVD-RW playback, use a DVD player that supports DVD-RW.
3. Because DVDs and CDs can share the same manufacturing facilities, DVD-R prices are expected to drop considerably in the future.
4. Video must be recorded in DVD-Video format to play it on a DVD-Video player. Some of the earlier DVD-Video player models may not support DVD-R. To play DVD-RW, use a player that supports DVD-RW.
5. Decoders are required to play compressed MPEG images.





## Q&A on DVD-R and DVD-RW

### Q: What kind of media are DVD-R and DVD-RW?

A: DVD-R and DVD-RW discs can store approximately seven times the capacity of CD-ROM. They are the optimal recording media for video or data. They can carry roughly two hours of video at average image quality. DVD-R is a write once media, while DVD-RW is rewritable up to approximately 1000 times.

### Q: What kind of devices can I use to playback recorded media?

A: DVD-R/RW's concept is ROM compatible. Once recorded, existing DVD-ROM drives and DVD players can be used for playback. With a DVD-ROM drive equipped computer, it is possible to read a DVD-R containing computer data. Also, if recorded in DVD-Video format, playback is possible on a DVD-ROM equipped computer or DVD-Video player.<sup>4</sup>

\* DVD-Video authoring software is required.

### Q: Is DVD-R anything like CD-R?

A: DVD-R and CD-R use similar dye material, and the production methods are also very similar. Many CD-R manufacturers have added DVD-R media to their product lineup. The recording methods are the same as CD-R with both Disc-at-Once and incremental write methods.

### Q: How difficult is it to install in a PC?

A: Pioneer's DVD-R/RW writer can be installed in a PC as easily as a CD-R/RW drive can be installed. It is expected that most CD-R/RW software will include DVD-R/RW support in the future.

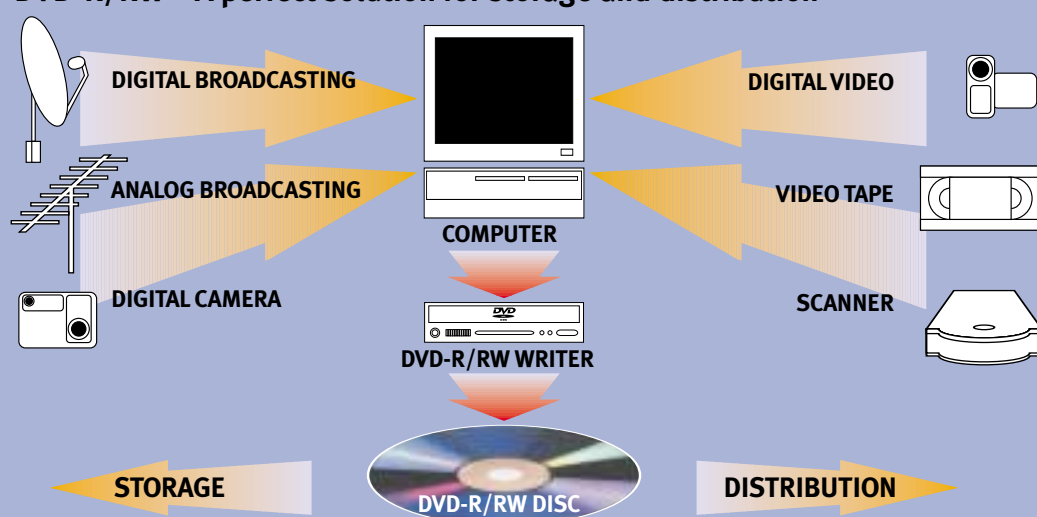
### Q: What companies are offering media?

A: Major manufacturers, including Pioneer, are preparing media. Printable media will also be released in the future. Because of the similarities in the production process of CD and DVD media, it can be expected that the price of DVD media will fall in line with CD media.

### Q: Is it possible to copy commercially available videos or DVD movies?

A: Any media containing copy protection cannot be copied. Please check the original packaging to confirm whether or not the intended title has copy protection.

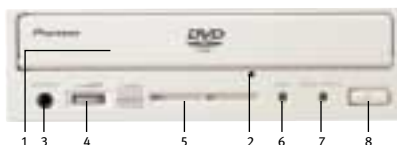
### DVD-R/RW – A perfect solution for storage and distribution



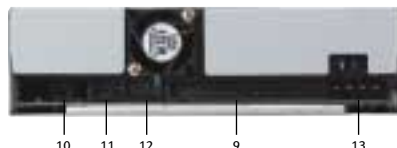
- \* If recorded in DVD-Video format, the content can be played on an appropriately equipped computer or on a standard DVD-Video player.
- \* Copyright law prohibits the use of any copyrighted content that you record for any purpose other than personal entertainment without the express permission of the copyright holder.
- \* Commercially available VHS tapes and DVDs with copyright protection, including movies, cannot be duplicated. See the title label to know if it is copyrighted.

## DVR-A03 Appearance

### Front Panel



### Rear Panel



### Front Panel:

- |                        |                     |
|------------------------|---------------------|
| 1.Disc Loading Tray    | 2.Forced Eject Hole |
| 3.Head-Phone Jack      | 4.Volume Control    |
| 5.Ventilation Holes    | 6.Disc Indicator    |
| 7.READ/WRITE Indicator | 8.Eject Button      |

### Rear Panel:

- |                        |                                |
|------------------------|--------------------------------|
| 9.ATAPI Interface      | 10.Digital Audio Output 1      |
| 11.Analog Audio Output | 12.Device Configuration Jumper |
| 13.DC Input            |                                |

## DVD-R Disc

- DVD-R (For Data)
- DVS-R470SD
- DVD-R(For Data)
- DVS-RP470SD
- (White Printable)



## DVD-RW Disc

- (For Data) Ver.1.1
- DVS-RW470SD



## Safety Precaution

Carefully read the instruction manual to ensure the safe operation of the product.

## DVR-A03 Specifications

Write Support	DVD-R (4.7 GB for General disc only*), DVD-RW, CD-R, CD-RW
Read Support	DVD-ROM single layer/dual layer, DVD-R (all types), DVD-RW, CD-ROM Mode1, CD-ROM XA Mode2 (form 1, form 2) Photo CD (single and multiple session), CD-DA, CD-Extra, CD-TEXT, CD-R, CD-RW (Supports AM2)
Write Speed	DVD-R 2X-CLV (2.76 MB/s), 1X-CLV (1.38 MB/s) DVD-RW 1X-CLV (1.38 MB/s) CD-R 8X-CLV (1.41 MB/s), 4X-CLV (0.70 MB/s) CD-RW 4X-CLV (0.70 MB/s)
Read Speed	DVD-ROM (Single) Max. 4X-CAV (5.52 MB/s) DVD-ROM (Dual) 2X-CLV (2.76 MB/s) DVD-R, DVD-RW 2X-CLV (2.76 MB/s) CD-ROM Max. 24X-CAV (4.23 MB/s) CD-R,CD-RW Max. 16X-CAV (2.82 MB/s) CD-Audio Max. 10X-CAV (1.76 MB/s) Video-CD 4X-CLV (0.70 MB/s)
Access Time*	DVD 200 Msec (Random Average) CD 180 Msec
*When DVD-ROM Single Layer Disc and CD-ROM Mode1 Disc are used	
Interface	ATAPI (ATA/ATAPI-5 & SFFC INF8090 Ver.5)
Data Buffer	512 kBytes (Read) 2Mbytes (Write)
Mounting Orientation	Horizontal only
Power Requirement	+5V +12V Read (average) 1.20A 0.84A Write (average) 1.20A 0.72A Maximum 1.40A 1.40A
Power Consumption	Maximum 23.8W
Regulatory Approval	UL,CSA,TÜV, CB Report, FIMKO, SEMKO, FCC Class B, FDA, CE Marking, C-Tick, CISPR-22B, Korean EMC, Taiwan EMC
Dimensions (W x H x D)	148 x 42.3 x 207.5 mm 5-13/16" x 1-11/16" x 8-2/16"
Net Weight	1.1 kg 2 lbs. 7 oz

- \* This writer cannot write on a DVD-R For Authoring, whether 3.95 GB or 4.7 GB.
- \* DVD-RAM is not supported
- \* High-Speed CD-RW is not supported to write
- \* Specific application program that support above format is needed

## DVS-R470SD, DVS-RW470SD Specifications

	DVD-R for Data	DVD-RW for Data
Substrate	Polycarbonate	Polycarbonate
Recording Layer	Organic Dye	Phase change
Recording Capacity	4.7GB	4.7GB

- \* Use of the copyrighted content you record with the DVR-A03 for purposes other than personal entertainment is prohibited without permission of the copyright holders.
- \* Windows is a registered trademark of Microsoft Corporation in the United States and other countries.
- \* Photo CD is a registered trademark of Eastman Kodak Company.
- \* This product is not intended for use as or a part of any equipment that may affect human life, including medical, nuclear power, aerospace or transportation equipment, or any equipment that requires an extremely high level of reliability.
- \* To record MPEG videos, a video capture card and MPEG encoder device or software are required.
- \* To replay MPEG videos, the appropriate hardware and/or playback software is required.
- \* To replay DVD-Video, a DVD compliant MPEG2 decoder board and/or appropriate software is required.
- \* The product package contains no flat connecting cables.
- \* The product's specifications and appearance described in this catalog are subject to change without notice.
- \* Due to printing limitations, the color of the product photos in this catalog may look different from that of the real product.
- \* Pioneer assumes no liability for any loss of data when the product is being used.

Pioneer is a member of the RW Products Promotion Initiative (RWPPi). The RW Products Promotion Initiative (RWPPi) is a broad range of DVD manufacturers' activities for the continued growth of the DVD industry and the maximum satisfaction of users of DVD products. RWPPi home page: <http://www.rwppi.com>

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